

KAYPRO, THE COMPANY BEHIND THE COMPUTER

by Nat Weiner

Ever since the Osborne bankruptcy, many have wondered about possible parallels with Kaypro. There are major differences. Osborne never did go public or otherwise raise enough money for staying power. The Osborne I, with its 5-inch, 52 col. screener and SSSD drives, was an interim product that got killed when better ones, notably the Kaypro II, came along. Even more crucial, it seems, was Adam Osborne's chaotic management style and giant ego.

In contrast, the Kay family have been in business a long time. They also have a product line which, if not at the leading edge of the market, is well-regarded by dealers, users and critics alike. Nevertheless, long-range success for Kaypro is far from assured.

As most of you know, Kaypro Corporation "went public" last August 25, selling 4 million shares of stock at \$10 a share. Becoming a public company simultaneously made the Kay family wealthy (to the tune of over \$9 million in cash) and gave Kaypro a major shot of capital (\$27.5 million). However, going public brings with it a requirement known as "full disclosure," providing a revealing look inside the company's financial past and present, and, to some extent, its future.

The company began in 1953 as Non-Linear Systems. For over two decades, it enjoyed a small but profitable business manufacturing electronic instruments, such as digital voltmeters and oscilloscopes, which it sold for aerospace, defense and industrial applications. By the late '70s, however, aerospace orders for Non-Linear's products had dried up. Sales fluctuated in the \$3 to \$4 million-a-year range, with losses instead of profits. By 1981, in fact, Non-Linear had NO net worth; while by August 31, 1982, the balance sheet showed a NEGATIVE net worth of \$468,000.

In 1981, in obvious need of a new product, Non-Linear began developing what would become the Kaypro II computer. The very limited resources available (Andy Kay had to borrow money using personal real estate holdings as collateral) restricted funds for product development and for tooling up. (Even in fiscal 1982, the year in which most of the work on the Kaypro II was done, R & D expenditures totalled only \$399,000, small industry standards.)

Nat Weiner is a financial analyst and an attorney, and an enthusiastic Kaypro owner.

The temporary poverty may have been a blessing, for it forced the company to be resourceful. Lacking the funds to create a new product from scratch, Kaypro assembled a group of proven components that were functional, economical and readily available, and packaged them in a format that had already been tested and proven by Osborne, whose computer was selling well despite design flaws. To this was added a readily available operating system, CP/M, and, taking another leaf from the Osborne notebook, a bundle of software good enough to get a first-time buyer started. The price for this package was extremely attractive. Moreover, Kaypro didn't even have to do any marketing; Osborne was doing it for them.

Non-Linear's timing was perfect. When Kaypro shipped its first product, in June, 1982, Osborne, unbeknownst to the rest of the world, was already on a self-destruct course. By the time the fiscal year ended, less than 3 months later, Non-Linear had shipped \$2,084,745 worth of II's (at wholesale value). The following year, about 50,000 Kaypros, worth \$73,487,566, were shipped, an incredible success story by any standards.

Fiscal 1983 also did wonders for Kaypro's (the company was now called that) financial picture. Profits of nearly \$13 million, plus proceeds of \$27.5 million from the stock sale, transformed the negative net worth of \$468,259 at the start of the year into a positive net worth of almost \$40 million at year's end. Pre-tax profit margins were an incredible 31.6% of sales: it took just \$8.1 of selling and general and administrative

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NEW IN THE LIBRARY

by Charlie Bowen
Software Librarian

These disks are new since the last newsletter:

BOSKUG.102: This disk contains NCAT, a program that will create a Master Catalog of all your disks. Using the auxiliary programs that come with NCAT, you can print out a complete catalogue or locate at a glance all the copies you have of any given file.

It works this way. You give every disk in your collection its own number. On a central cataloging disk, you keep NCAT and a file called MAST.CAT. When you run NCAT, it prompts you to insert all your disks, one at a time, and as the directory of each disk is searched, the files are added to MAST.CAT. Auxiliary programs like CAT and XCAT let you print out a complete list, sorted by file name (and with CAT you can print out partial lists, variously defined). Whenever you feel the need to update the MASTER CATALOGUE, you just call the program and run your disks through it again. For each disk, it will add the names of new files and delete the names of files no longer present. It only takes a few seconds per disk, and there you are, up to date.

This version was enhanced by Mike Bate of our group so that it will examine "library" files and list individually the separate files they contain.

There are complete instructions on the disk for doing everything you have to do, from putting numbers on your disks to printing out the results. We have written our own docs for beginners and also included the original docs for those more experienced.

BOSKUG.132: A new collection of prefabricated PF.DAT files, to make the installation of Perfect Writer on several printers a snap. Printers currently covered: Bytewriter, Daisywriter, Diablo, Dynax, Epson FX-80, Gemini 10X, Mannesmann-Tally 160, Okidata 92, Prowriter, Silver-Reed, and Transtar. Our thanks for these to Mike Weiss of Kaypro. We'll be adding others as we get them. If you have a hard-to-do PF.DAT to contribute, bring it to a meeting on disk or print it out and mail it to me.

BOSKUG.103-104: At long last, the "DUU Package." This was going to be a DUU disk, but when I finished the introduction, I found that it alone filled up a whole disk (Kaypro II, of course). So that's now the second disk; the first contains the program DUU with its original documentation, plus some handy programs for converting hex numbers to decimal and vice versa, determining the ASCII codes for all the characters that the Kaypro (II, at least) will print; and some further educational discourses on the hexadecimal numbering system, the ASCII code, and how to patch a program with DDT.

(The latter won't teach you how to do what programmers do, but at least you'll be able to follow the kind of specific instruction you sometimes receive with a public-domain program, such as "Patch 103H non-zero to activate option X," or "change byte 222 to 04," and so on.)

What is DUU and why is this 7kb program worth more than 200kb of documentation? Unless you pay pretty good money, you can't find another program that will let you recover files with bad sectors, save the contents of disks with smashed directories, do the work of Findbad and Unerase (not as easily as they do, but sometimes in conditions where they won't work), and even change the CP/M sign-on message.

DUU won't do any of these things for you automatically, but if you're willing to learn a few things about the way your disks and their directories are organized, you can do them for yourself and extend your education in the process. Explicit, step-by-step instructions are given in the long introduction. This program can really increase your power if you take the time to learn how it's used.

BOSKUG.020: A CP/M disk for the new Kaypro 4E. What's special about it is the presence of MFDISK, Kaypro's own new multiformat program (similar to UNIFORM, which is no longer distributed with the computers). This version is only for the 4E (the new 4) and the 10, but we understand that versions for the II and 4 will be made available.

Sean Debardeleben has volunteered to undertake the "Beginner's Modem Disk" project, and we anticipate its appearance in the library, not "Real Soon Now," but (really) SOON.

TIPS FOR BEGINNERS

by Sarah Wernick

A new disk needs a new "boot." Each time you change disks, "warm boot" the machine with CTRL-C, or else "cold boot" it by pressing the reset button in the back. If you forget to do this, the program you've just inserted may not perform properly.

Say that Perfect Writer (in Drive A) is telling you that it can't save your file because your disk is too full. But you know the disk you're working with (in Drive B) is nearly empty. The odds are that you're telling PW to save FILENAME instead of B:FILENAME, and PW is trying to stuff the new file onto the already-crowded editing disk in Drive A!

DO NOT PANIC! You can still save your hard work by using PW's "Write" command, invoked by typing CTRL-X, CTRL-W. At the prompt "Write To File?" type "B:FILENAME.EXT", hit Return, and the file's saved to the B: disk.

The PW manual shows "style" commands in UPPER CASE LETTERS, but PW will accept style commands in lower case letters too.

Need on-screen help with Perfect Writer? The command summary card doesn't tell you this, but "ESC ?" brings up a "Help" menu.

(Continued on p. 3)

If you own a Kaypro, you are entitled to a free 6-issue subscription to PRO/FILES, an excellent, user-oriented magazine that bears no resemblance to the self-serving rags most companies sponsor. Just send your name, address, Kaypro model date purchased and serial number to Pro/Files Subscriptions, PO Box N, Del Mar, CA 92014.

Teach your Kaypro to tell time -- the cheap way! Attach one of those tiny battery-operated "button" clocks to the console, next to the screen. Use the stick-on type, not the magnetic kind, or you'll lose disk data.

A good mail order source of bargain office supplies is QUILL, 100 S. Schelter Rd., Lincolnshire, Illinois 60198-4700. They'll send a catalog, or you can look at the one in the BOSKUG hard copy library.

PERFECT CALC MEETS PERFECT WRITER

[Reprinted from PRO-GRAM II:3,
the newsletter of the Long Island KUG]

"I often use Perfect Calc to generate columnized lists, which are then inserted into Perfect Writer text files. Columnization is rather difficult to do with Perfect Writer alone, rather than using the preset tab locations (how tab). Using the Print to File Command, '<CTRL>-x-p', or the PRINT REGION to FILE COMMAND, '<CTRL>-x p', the spreadsheet's screen image is printed to disk. Then [using the File to Insert command, '<CTRL-X I>'] the screen-image file is inserted into a Perfect Writer document. In conjunction with the proper @style commands for margins, a maximum of 78 characters (at 10 cpi) can be printed on standard 8.5" wide paper, or nicely formatted to console.

"The only drawback is that Perfect Calc inserts a space (ASCII 32) for each unoccupied character space, which wastes quite a few k's of disk memory in a long file, ESPECIALLY if many blank lines are used. But, luckily, Perfect Writer has a Remove Trailing Whitespace Command, '<CTRL>-X \', which effectively kills, on average, 70 to 80% of that wasted space. It's surprising how much can be saved, and it's easily checked:

"When the file is first read into Perfect Writer's buffer, check its exact size with the Buffer Directory Command, '<CTRL>-X-B'. Then, find what appears to be a blank line within the screen-image portion of the file, and put the cursor at the end of the line ('<CTRL>-E'). Enter the RTW Command, '<CTRL>-X \', and wait a few seconds (the longer the screen-image file, the longer the wait). The cursor will eventually move to the beginning of the line, indicating that the command has been executed. Recheck the Buffer Directory; there should be a substantial difference in the file length."

--Jim Kilminster

LETTER FROM FRANCE

[Ed. Note: Debra Barngrover, one of BOSKUG's earliest members, helped develop our software library before moving to France last spring to work for Sanofi Recherche.]

"Bonjour, and greetings from France! How's computing going in Boston? Things are clicking along here, though I definitely miss the interaction with other Kaypro owners at the bimonthly meetings.

"Kaypros have been introduced into France (the manuals have all been translated) and, in fact, were judged the best in their class (transportables) by a consortium of computer magazines in Europe. But, probably due partly to the unfavorable rate of exchange, not too many are being sold here.

"... How is the software library coming? Has anyone there worked out JRT Pascal on the Kaypro yet? I have been trying to learn MUMPS, but it is slow going. I spend a lot of my spare time studying French, so don't have as much time for my Kaypro as I'd like.

"At work, we are building up quite a computer system as well. Sanofi Recherche has developed a system called CROS, which allows one to access up to 20 different databases at once (like Medline, BIOSIS, Chem Abstracts, etc.), and do the same search in all 20 at the same time. It uses a standard language, so that the searcher doesn't have to learn a new search language for each database. After having spent the last few years trying to learn all the intricacies of the different databases, I really appreciate it.

"I would really love receiving news of Kaypro activities in Boston and what's being tried and learned. If any of you are vacationing in Toulouse (or planning to visit here), I hope that you will contact me, and I'll try to introduce you to a little of France, Toulousian style....

Take care --

Debra Barngrover
12, rue de Dakar #11
31500 Toulouse F R A N C E
TEL: (33) (61) 54 69.89"

Adventure Tip

From N. Seattle KUG Newsletter: "Go inside the building; also follow the streambed. To be able to retrieve the sword you will need a special diet (and I don't mean the food in the building). Use the pillow to safely place the vase in the building. The axe is very useful against the trolls. There is oil in the pit in the east end of the Twopit room. Try jumping into the whirlpool but don't carry anything more than your light. Give the troll the golden eggs to cross and later return to the Giant room and say one word at a time."

DIRECTOR'S NOTES

by Lee Lockwood
Co-Director

TAX VOBISCUM. Regrets to those who hoped to hear our tax program. First, Ray Baril, our speaker, was laid low by flu; he rescheduled for the next meeting only to get snowed out. Since we had a speaker already scheduled for March 27 (Glenn McIntyre of Delphi), we had to throw in the towel. But we'll try again next year!

MODEM SIG? We now have use of a telephone line in our meeting room and plan to have a regular Communications SIG doing modem stuff there. Local calls only, please.

EMERGENCY: KUGEL EDITOR WANTED. Alan Chapman, who launched the newsletter, has resigned. I have edited this issue. But we need someone to take over if there are to be future issues. It doesn't require a lot of editing experience, just time. We do have a good staff in place now sharing the load. But a new editor is mandatory! Call Lee at 965-6343.

ALSO AN AD SALESMAN. Murray Gintis, who has been selling ads, is leaving, and someone is needed to write letters and make a few calls to dealers and manufacturers. Not terribly hard or time-consuming work. Call Lee.

INTRODUCING JODI. This issue's improved graphics are largely due to Jodi Colella, a volunteer from Mass. College of Art, who has been doing our design and production work, including the new logo. Since she's not a computernik, you may never see her at a meeting. Thanks, Jodi.

And thanks to Alan Chapman for all his hard work on the Kugel this past 6 months.

BYE-BYE GROUP BUYS? We are receiving many new offers from manufacturers for group discounts on a variety of products, hardware, software and miscellaneous. What is needed is one person to take charge of this effort, get it organized, and supervise it. We are missing out on attractive opportunities simply because no one is doing this at present. Volunteers? Call Lee.

SCHEDULE UPDATE: Please note our reduced meeting schedule in July & August (one monthly meeting only).

ANNIVERSARY? BOSKUG is nearly one year old. Any ideas for a celebration?

THE KAYPRO 4E

I've had one of the "enhanced" Kaypro 4s for about a month. Here are some early impressions.

The 4E is essentially a Kaypro 10 with floppies instead of a hard disk. It has the same board, monitor, screen, fan, etc. as the 10, which makes it faster than the II (4mh vs 2.5mh) and pleasanter to use. Unlike present 10s, the 4E also has a built-in 300-baud modem and a "real-time clock."

Unfortunately, at the time I got my machine Kaypro had not yet released software (a new version of SuprTerm) for the modem, so I can't use it yet. People who got 4Es after me got SuprTerm with it, but latest word from Kaypro is that it doesn't work and is being re-written.

(Stand by for further bulletins.)

As for that clock--to access it you must load MBasic and a program called "CLOCK.BAS." After a lengthy pause, this produces a pretty screen display of the time expressed in years, month, days, hours, minutes, seconds, 100th seconds. (The year setting doesn't work.) There is currently no way of using this clock (which is powered by a lithium battery) for any practical purpose such as dating files, etc. My own preference for a clock that does nothing but tell time is the stick-on button type that costs \$2.95. (You don't have to load it.)

Like the 10, the 4E has some graphics, reverse video, etc. WordStar now comes up with a reverse video menu, very helpful. Perfect Filer displays its screens at 1/2 intensity, while the data you type in is fully bright. On all other bundled software, there are no other differences.

On all screens, the cursor is now a blinking block instead of a dash. The on-screen character set is cleaner, with true descenders. The screen itself is now 25 lines high -- 1 line higher than the II's.

The fan is a bit noisy and blows air out of the ports, creating a bit of a draft. I'd like to have a switch to turn it off when I want. And, while I'm redesigning things, I'd love to have my reset button on the front panel; though a bit easier to reach, it's still rear-mounted.

The drives are now half-height ones and allegedly more dependable than the II's Tandons. However, it seems Kaypro is shipping the 4E equipped with drives from at least 3 different suppliers (Shugart, Toshiba, Tandon). This is likely to make replacement of defective drives a bit tricky!

Although mostly identical to the 10, the 4E's BIOS is slightly different from both the 10 and the II. One result is that the BCN modem disk, which runs fine on the 10, can't operate on the 4E even with an external modem. Other programs show subtle operating differences (Smartkey, for example), and some may not run at all. There is currently no version of PluPerfect Writer for the 4E.

To add to the confusion, disks formatted and sysgened in my 4E will not boot up in a regular 4 drive -- even when re-sysgened! Old 4 disks, however, will boot in the 4E. Figure that one.

For the 4E, Kaypro has dropped its limited version of the popular Uniform program and written its own multi-format program called "MFDISK.COM." Its best point is that it allows you to set either Drive A or B to any of its supported formats. (These include: Kaypro SSDD (!); Kaypro SSDD; Kaypro DSDD; Osborne single & double sided; Xerox single & double sided; TRS-80; IBM-PC single & double; TI Prof.; Morrow; Zenith Z-10; NEC PC-8001a. So far, I haven't been able to read IBM-PC disks with MFDISK. The program also groans scarily when loaded for some reason.

SUMMARY: The faster clock speed, more readable monitor and screen, addition of graphics, and (potentially, if it works) the on-board modem are all advantages that make the 4E worth more than the \$200 increase in price from the old 4.

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DIRECTOR'S NOTES (Continued)

Whether the 4E is worth \$700 more than the II, (which has just dropped to \$1300) is another question....

BOSKUG PHONEBOOK. The new BOSKUG membership directory up-to-date as of March 1984, is out. It has listings alphabetically and by city (to help people needing to car pool). See Diane at a meeting to get a copy at nominal (Xerox) cost.

KAYPRO DOES IT AGAIN DEPT. As this was going to press, word came of yet another change in Kaypro's neverending software musical chairs. Effective immediately, the Perfect Software bundle will be abandoned in favor of a similar MicroPro bundle including: WordStar, MailMerge, CalcStar and DataStar. (4, 10 and Robie buyers will get InfoStar, a relational database program that includes DataStar.)

BUT (as they say on TV) -- **THAT'S NOT ALL!** The 4 and 10 will come bundled with dBase II as well! And dBase, they tell me, works interactively with WordStar, InfoStar and CalcStar.

Why are they doing this? Word from my source at Kaypro is that Perfect Software was not supporting its products. Meanwhile, MicroPro made Kaypro (Pro meets Pro?) an offer they couldn't refuse. Let's hope that this is the last software switch for a while. You certainly can't beat the value. It is possible that upgrades may be offered to current Kaypro owners at a decent price.

Kaypro IIs, which recently dropped \$300 in price, now come with only one BASIC (Microsoft). The II (now renamed the 2) has been upgraded to a "universal" mother board, that of the 10, which means that it now has a 4mh controller chip in place of the old, laggardly 2.5mh chip; it will also have the screen, monitor and graphics of the 4 and 10, as well as half-height drives. No modem, no clock and no fan, but places for all three.

KUGEL TEXT DEADLINE. Next Closing: May 14

NEWS BRIEFS:

THE ROBIE, Kaypro's desktop, is still delayed. Kaypro is now manufacturing the new, 2.6 Mb drives itself.* They will have 2 motors for head movement: #1 moves the head out to the selected track, while #2 follows the track as the disk spins to compensate for misalignment and disk inconsistencies. The new drives will also read Kaypro II and 4 disk formats. Otherwise, the Robie will be much like the 4E in a different shape. Price is \$2300.

A "KAYPRO 8" ??? In the April '84 North Seattle KUG Newsletter, Editor Rob Aprato reports:

"I now have a double-sided quad density disk drive running as my B drive in my Kaypro II...and have had no problems with it whatsoever....The Pro-8 can read and write II, 4 and 8 formats...the only problem being read errors when writing to a disk that has already been written to

with a II or a 4, because of the difference in writing head size.

"The real beauty of the system is that you can run 2 different types of drives at once. I am running a SSDD drive as my A, and a DS quad drive in B....There are about 9 different drive combinations possible. If you're on a limited budget, you can change one drive now and the other later.

"Pro-8 quad drives at a good price are available at Computer Components Unlimited, Hawthorne CA, at (800) 847-1718. Price is \$165 for one, \$300 for 2. These are CDC drives and much better than Tandons going for much more money...."

[Note: Rob Aprato can be reached at (206) 347-1138.]

*See Nat Weiner's article for an opinion on the Drivetec drives.

MAKING PW PRINT SELECTED PAGES OF TEXT

From the Printer Menu, select Option N ("start printing on a page other than page one"), and specify which page. At the same time, select Option P ("pause for manual insertion"). PP will print out only that page, then pause. The commands to do this without using the Menu are: "PP -pause -page n filename."

[From the Austin KUG 2/84 newsletter]

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SPEED UP WORDSTAR 3.3 WITH A SIMPLE PATCH

by Gerald Grow
revised for the Kaypro by Alan Chapman

The major improvement of WordStar 3.3 over version 3.0 is an easy-to-use, menu-driven Install program (WINSTALL.COM) which allows you to change default values to customize WordStar to suit your own style. However, it doesn't allow you to change the delay times between certain functions which make WordStar annoyingly slow. You can speed up WordStar considerably if you change these time values using CP/M's DDT.COM (Dynamic Debugging Tool). It's easy to do and only takes a few minutes. Here's how:

First, make a COPY of your WordStar program. Never experiment with the original.

The address locations that affect WordStar 3.3's variable speeds are as follows:

LOCATION Contents Change to

1.	2B2	40	1
2.	2B3	09	1
3.	28E	0A	1
4.	28F	05	1
5.	2B1	19	50 or more

The "Contents" values represent the number of milliseconds delay at a 4 mhz operating speed. On the Kaypro II (2.5 mhz speed), these delays are approximately twice as long. The "changed to" will give you maximum speed (except patch 5, which increases the delay), but you can patch these functions to any speed you choose.

PATCH DESCRIPTIONS

Patch #1 above eliminates the long delay WordStar inserts when displaying the copyright notice, as well as the time the "New File" and "Abandon" messages remain displayed.

Patch #2 reduces the amount of time WordStar waits after a keystroke before refreshing the screen. The screen is now re-displayed much more rapidly after a horizontal scroll.

Patch #3 reduces the delay after a cursor movement.

Patch #4 reduces the delay after other functions.

Patch #5 vastly lengthens the time you have to hesitate before WordStar ties up the screen with help messages (when using Help Menu Levels 2 and 3) from the ^P, ^O, ^K, and ^J help screens. This way, if you hit a control-P, then pause to remember just what you were doing, you have four full seconds to hit the next keystroke before WordStar tries to help you (whether you want help or not).

PROCEDURE

With DDT on your master disk in Drive A and a copy of WordStar 3.3 in Drive B, type:

A> DDT B: WS.COM <RET>

Next, type:

"S 2B1 <RET>." Your screen will show:
-02B1 19

After the 19, type "50." The line now says:

-021 19 50

Type <RET>, and your screen will bring up:

-02B2 40

Type "01" to produce:

-02B2 40 01

Repeat these last two steps to produce:

-02B3 09 01

Now type "G 28E" to move you to that section of the program, and follow the same steps to produce:

-28E 0A 01

-28F 05 01

Now exit DDT by typing: (1) <RET>, (2) period <.> (3) <RET>, (4) CTRL-C.

At the A> prompt again, type:

SAVE 70 B:WS.COM <RET>

You have now patched WordStar 3.3 using DDT.

The WordStar 3.3 "address locations" for these patches are different from previous WordStar versions. If you have an earlier version (2.4, 3.0), you can get into the patch areas by using the NAMES of those areas (such as HIBI, etc.), as shown in the reference section of the WordStar Installation Manual.

CHOOSING BETWEEN WS AND PW

Here's a quickie guide to the strengths of both word processing programs (in my humble, but brilliant opinion).

WHEN TO USE WORDSTAR:

When format or appearance are critical: WS justifies text better, has hyphen help and built-in soft hyphen programs which are very good and result in more even text lines, fewer ribbons of white streaming down the page; Variable tabbing (i.e., columns where you want them); on-screen page breaks; and the ability to move vertical columns of text or numbers. It also has the ability to scroll right to accommodate formats up to 132 columns. And it offers more flexible print commands including greater flexibility in line spacing, ability to stop the printer to change print wheels/type style in mid-text, and the ability to over-print characters.

WHEN TO USE PERFECT WRITER:

Perfect Writer is a superb editor offering more editing options, easier-to-use (and remember) commands, and greater flexibility. Its powerful "Environment" commands provide easy, consistent formatting. You don't have to worry about whether you lined things up, or whether you numbered paragraphs and subparagraphs correctly; PW does it for you. PW is excellent for long text (books, manuals) that may require a number of iterations or continual updating, or calls for footnotes and indexing, or must be tracked chapters/sections.

--Alan Chapman

PERFECT WRITER/PERFECT SPELLER ON THE KAYPRO

William Murdick

Maxwell Publishing

California, PA 15419, 1983; 224 pp.

List price \$19.95; however, KUG members may obtain the first edition for \$10, including shipping, since it has typographical errors.

A book review by Sarah Wernick

Some software documentation cries out for translation into comprehensible English. But Perfect Writer comes with a manual that word processing guru Peter McWilliams calls "the finest I have read." The manual and the Perfect Writer lessons disk that come "free" with the Kaypro have their flaws but are adequate; any alternative would have to provide a lot more information to justify additional expense. Perfect Writer/Perfect Speller on the Kaypro is simply not good enough.

The book includes a series of lessons for beginners, a 44-page reference section on the commands, style sheets that show the effect of various environment commands, and a section on customizing Perfect Writer. Perfect Speller, despite the title, gets only a couple of the 224 pages in the book. (That's just as well: The Word Plus, a superior spell-check program, is also bundled with the Kaypro.)

Murdick offers a competent series of lessons that take a beginner through the basics. But the novice Kaypro user has the superior option of learning from the lessons disk, without having to go back and forth between book and screen. Also, beginners probably are better off working with one manual, not two. Since the official PW manual is more complete than Murdick's, you should use it.

Advanced PW users: you will find slim pickings here; Murdick knows less than you do. For instance, he hasn't yet discovered all PW's undocumented commands. (For a more complete list of these commands, see Boston Kugel, Volume I, Number 2.)

CONVERTING PERFECT FILER TO dBASE II

This procedure is outlined in the "Foreign Data Files" sections of the dBase Manual. In 2.3B those pages are A-47 and B-39.

1. Using FILER, define a list which will include the information you will want to transfer. In the construction of this list carefully note the size of each entry. Do not put any carriage returns between items but do put one after the last item in the list.

2. Generate a PF list to a file (menu item) with the form "b:filename.txt" which contains the needed information and is small enough to fit on your dBase program disk or on the database disk.

3. Exit PF and bring up dBase.

4. Create a dBase II data record with the same items as were in the FILER list (item names may be changed). The item sizes must be at least large enough to hold the longest matching entry in your PF database. dBase moves the individual

entries by position, not by entry name. dBase knows to go to the next item because of delimiters that PF uses to separate each item. The carriage return tells dBase to go to the next data record. If a PF item is too long, or there is a missing delimiter (not possible when transferring from PF but eminently possible when transferring text files) dBase loses track and you may lose that record, but the carriage return will correct the next one, and limit your losses.

5. Exit dBase and PIP or otherwise transfer the PF file you generated in step 2 to your dBase disk.

6. Call up dBase d:filename and when you get to the dot prompt, type the following: Append from d:filename.txt delimited.

--Mike Holmes

PERFECT CURSOR

by Sarah Wernick

Ever wish that the cursor keys for Perfect Writer were placed "north-south-east-west" instead of in a line? You could buy a special program like Smartkey or PluPerfect Writer to make some changes. (See issue 2 of Kugel for descriptions of these fine programs.) But the CONFIG program that comes on your CP/M disk can turn your numeric keypad into the cursor keys of your dreams.

After you run CONFIG as described below, 8 will move the cursor up; 2 will move it down; 6 will move it right; 4 will move it left -- just like in Catchum. If you hit any other keypad key, you will hear a beep, but nothing will happen on the screen.

Put the CP/M disk in drive A and your Perfect Writer disk in drive B. At the A> prompt, type CONFIG to start the program. Elect option 4 -- to configure the keypad -- then take option 2 on the keypad configuration menu. Follow the directions to make these changes: 2 becomes 0A; 4 becomes 0B; 6 becomes 0C; and 8 becomes 0D; everything else becomes 07. (See page 75 of the spiral-bound Kaypro II User's Guide for an explanation of these codes.)

When you are finished, press the escape key three times to exit the program. CONFIG will then ask if you want to put the changes on the disk in drive B (i.e. your Perfect Writer disk); say "Yes." There will be some disk activity, and the CONFIG menu will reappear. Press the escape key to exit the program, remove the CP/M disk and put the word processing program in drive A. Press the reset button, and behold! Your Perfect Writer disk now has N-S-E-W cursor signals.

The new cursor signals will go into effect after a cold boot or reset, but not after a warm boot. Similarly, the configuration will apply to other disks warm-booted after you remove the configured Perfect Writer. (This means, for instance, that if you want to follow a writing session with a game, you'll have to reset the machine.) Also, you can't copy the configuration onto a backup PW disk; you have to reconfigure each copy.

T/MAKER III: INTEGRATED SOFTWARE FOR THE KAYPRO

Two Reviews

T/MAKER III

T/Maker Company

2115 Landings Dr., Mountain View, CA 94043; \$275

A software review by Bob Harlow

T/Maker III is an integrated software package that runs in CP/M on the Kaypro 2, 4 and 10. Its major features include:

Word Processing	(very, very nice)
Spreadsheet	(weird, but good)
List Management	(simple, effective)
Data Transfer	(curious but workable)
Graphics	(bar charts)
Files Management	(redundant but handy)

OVERVIEW: T/Maker is file-oriented and command-oriented. It's a dandy little program of about 150K, which leaves lots of room on Drive A for other things you like to do. All files are handled in the same way; T/Maker makes no distinction between a word processing file, calc file, or database file, in terms of how you create and edit. Right there, it saves a lot of time swapping disks.

There are no menus. T/Maker at the shell level gives you a command prompt. You can string together a series of English-like commands all at once. and T/Maker executes them from left to right. Example:

WHAT NEXT? align save print it

This command would format your article, save it and print it, all in one sequence. Sequences of commands can be stored (as a normal file) and executed. Its a little like programming.

WORD PROCESSING is done in T/Maker's other environment, the editor, which you get by typing "e" ("edit"). The thing I like best about the editor is that it is screen oriented: you can move the cursor anywhere on the screen and begin typing. Most entry is in "overstrike" mode, so typos are easy to back up over and fix. Inserts are turned on with ESC I, turned off with the same command. Formatting and aligning text are done with left and right arrows, and remain until changed. There are nice ways of doing top & bottom routines, blocking paragraphs so they don't go across page breaks.

A terrific feature is the keyboard macro, which lets you store a sequence of keystrokes in a temporary, buffer-like memory and recall them once or many times.

SPREADSHEET calculations are very different from most programs. Spreadsheets are created in the Editor. There is no set cell structure. You define your relationships by columns and rows. Equations for calculations run down the left margin of the file and along the top of each block to be calculated. (These don't have to appear in the printed document.) The big advantage of this method is that you can combine in a single

document text, mathematical tables, and database material.

Data entry, word processing, table creation, forms creation, etc. are all done in the Editor; while calculation, paragraph alignment, sorting, merging, loading and Unloading Data are all done in the shell, to the WHAT NEXT? prompt.

LIST MANAGEMENT is also done in a tabular way. SORT and ARRANGE are done in column fashion and work very nicely. One caution: if you have a data base that you want to sort on one thing or another, it works best if you can keep your records down to about 10 to 30 fields, total characters 300. That is the maximum width of one line in a T/Maker file, and since sorting is done on columns, you would like one record = one line.

DATA TRANSFER is a piece of cake if you have a base which is a table. You design forms by just writing them merrily out in the editor, inserting some brackets where you want the data to go. Inside the brackets you write the name of the variable. None of the tedious menuing around of Perfect Filer! Want a new list format? Write one in the editor!

FILE MANAGEMENT means that you can get a crude directory, delete, create, chop, merge, and list (!) files all from the T/Maker shell. You rarely if ever have to go back into CP/M for anything.

And that, in summary, is what I like best about T/Maker III. I don't see a budget as different from a telephone directory, an individual letter or a form letter; neither does T/Maker. I have files; T/Maker has files. I do work; T/Maker is a bag of tools.

For its filesize and price, T/Maker does a very nice job on the day-to-day paperwork that I have to do. My biggest objection to T/Maker--and it's a real one--is that you have to learn their Byzantine approach to spreadsheet design. Of course, you could always put PC, Microplan, etc. on the same diskette and print your calc files out to text files, as in PW. Then T/Maker will handle them as text just fine.

A software review by Phil Marshall

Something that does everything usually doesn't do anything magnificently. This is true of T/MAKER. It is basically a word processing program that has other features.

It also is command driven. Almost like another operating system, it wakes up with a vague prompt "1/1 What Next?", reminiscent of "A>". This makes it difficult to learn. Even after weeks of use, the 28-page quick-reference guide is a must to use the program. The Guide is a clear one.

One very convenient feature of the command line is the ability to stack commands. I instance, to print several files, you could type: "GET FILENAME.TXT ALIGN PRINT NONSTOP IT GET NEXTFILE.CLC COMPUTE CLEAN PRINT NONSTOP IT STOP" These instructions will get the files,

prepare them to be printed, and then print them without pausing. Meanwhile you could go watch TV.

The T/MAKER Editor is very different from both Perfect Writer and WordStar in several respects. Some good features:

- + The cursor keys allow you to move the cursor anywhere, even past the end of line or end of file. It is similar to Volkswriter (on the IBM PC) in that respect.

- + There is a keyboard macro feature. All keystrokes keyed between ^B and ^X will be remembered and repeated by typing another ^X or n times by ^Zn.

- + There is a super shift key! It is a prefix key, and sets the high bit on the next character typed. Its usefulness will be more apparent when I talk about formatting and printing.

- + You can change which keys call which functions. This way you can, as much as possible, make T/Maker's commands the same as for your other word processor.

These nice features are offset by some very significant problems:

- The DEL key works strangely. It puts a space over the character it is on, then moves back a character. This is okay in Overwrite, but in Insert, it is unacceptable.

- The return key moves the cursor to the beginning of the next line and, even in insert mode, will not insert a CR/LF. To do that you must press ESC >.

- You cannot, by using the horizontal arrow keys, get from the end of one line to the beginning of another, or from beginning to end. Nor will the DEL key delete a RETURN; you must use ESC <. Thus an accidental return is not as easy to recover from as it should be.

All of these problems can be overcome by using a different editor, like Perfect Writer, and using T/Maker for its other, better features, like formatting and printing.

T/MAKER has at least as many dot commands as WordStar, but has better facilities for aligning the left and right margins. It does this using non-printing command lines with markers for the location and type of margin (similar to the way MacWrite does it). You can have lots of ruler lines in the text to specify fully justified text, centered text, etc. Writing with Perfect Writer and printing with T/MAKER might be optimal. The text is aligned outside of the Editor using the ALIGN command.

Another useful feature is the printer translation table. Unlike PW's, it is a text file that allows you to specify only those characters that you want changed. Additionally, you can change them to more than one character, with or without the high bit set. So ^B might be converted to the escape sequence for bold, ^U for

The manufacturer is offering KUGs a special deal on this program. If they purchase 1-10, the price is \$165; for 11-50, it is \$150. In addition, participants will receive a year's free subscription to T/MUG, the T/Maker User's Group newsletter, as well as discounts on future products.

underline, ^S for superscript, etc. I even created some special characters. The possibilities are endless with a dot matrix printer.

I have spent a lot of time on the Editor, because many of us Kaypro owners spend a lot of time using PW or WS. T/MAKER also has spreadsheeting capabilities, but they are still worked on by the editor! As a spreadsheet program, T/MAKER doesn't compete with full-scale programs like Perfect Calc. It's main strength is in the creation and calculation of tables. (T/MAKER = "Table Maker.")

Here is a simple example, just as I entered it:

SALES FIGURES (for the first three months)

ex		999.99	999.99	999.99
ac1		+	+	=
	Category	January	February	Totals
+	Widgets	23		26
+	Gadgets	63		43
+	Toys		61	37
= +	Totals			
jcl		cum+		+
=	Cumulative Totals			
<<				-->>

Now leave the editor, type COMPUTE CLEAN E (for "compute then clean then edit"), and see your final table:

SALES FIGURES (for the first three months)

Category	January	February	Totals
Widgets	23.00	26.00	92.00
Gadgets	63.00	43.00	129.00
Toys	61.00	37.00	122.00
Totals	147.00	106.00	343.00
Cumulative Totals	147.00	343.00	343.00

GRAPHICS

The available graphics functions are similar to the ones in Perfect Calc. There are lots of bar graph patterns available, but the whole process is quite tedious. In this case, it would seem that you would be better off using a graphics program, like Dataplotter.

LIST PROCESSING

Many of the List processing features are quite useful. The commands include: arrange, field, replace, drop, keep, match, sort and tally. For example, tally counts the instances of like elements in a list, given the columns to look in. It is useful in evaluating questionnaires or determining frequency of occurrence.

(Continued on p. 10)

MICROSHELL

New Generation Systems, Inc.
2153 Golf Course Dr., Reston, VA 22091; \$150

A software review by Sean Debardeleben

The proliferation of commercial and public domain replacements attest to the fact that CP/M's CCP is inadequate. Programs such as Power! or PluPerfect offer expanded features, yet may be limited, difficult to learn or inflexible. Others, like ZCPR2 or CLIP require a great deal of storage. Those looking to improve CP/M's user interface with expanded features without losing compatibility would do well to investigate MicroShell by New Generation Systems. MicroShell was designed to implement the best functional features of the UNIX "shell," and like UNIX itself, is easy to learn, versatile and very powerful.

MicroShell has a number of features that set it above every available operating system enhancement. First and foremost is a file search procedure which will locate any type file on up to six currently available drives. In addition, up to eight different exact file types are supported as wildcards, although one must be aware that the more inclusive the search, the longer one waits. Of course, MicroShell's real power is felt on systems where on-line storage is not at a premium. However, no disk space is necessary for the usual shell operations and a 10K overlay file is used for status reports and shell file programming. User areas are also supported. If the user keeps a disk with all routinely used programs in disk drive A, he can then operate from drive B, in any user area, without concerning himself with where his needed programs are located.

Another powerful feature is input/output redirection and "pipes." Output redirection is the process of redirecting a program's output from the console to a new file or appending the output to an existing file. Input redirection is the process of redirecting a program's input from the console to a file. If you are frequently compiling, running and re-entering the editor to modify source code, you can save time and prevent keying errors by setting up a file with all the instructions used to enter the editor (i.e. open the file and set help levels or margins) and then telling the editor to accept this file as input. "Pipes" are a combination of input/output redirection. If you have a program that counts the number of times a set of words occur in a text, you can simply type the file and "pipe" the output to be the input for your counting program. You can forget all about opening a file and reading from it.

In order to increase system speed, MicroShell intercepts all warm boots. This is a real improvement but creates problems on the Kaypro 4 or 10 when switching between single and double-sided disks; you must exit MicroShell and do a "real" warm boot. However, if all you want to do is change disks of the same format, then there is no problem.

The documentation is thorough. If you are already familiar with UNIX, then a quick glance is

all that is necessary. Moreover, a simple command will display less than a screenful of information: the current status and all that is necessary to customize MicroShell to your systems' resources. The 55-page manual explains, for the novice, each command and provides clear examples, at the same time including all the technical information you could want.

How does MicroShell stack up against ZCPR2 (the public domain CCP replacement with similar capabilities)? Without attempting a full review of ZCPR2, it has only one feature that MicroShell does not support: a security program that forces users to enter a password word when attempting to access "secure" user areas. On the other hand, ZCPR2 does not allow for file searches of other than .com extensions or allow input/output redirection. Although its utility programs are excellent, it was not designed to provide "operating system" tools for software development but as a simple upgrade to the CCP. The total ZCPR2 package is well over 300K and is much too large for smaller systems.

THE RULE OF 64

In CP/M 2.2 there is a little-known, and even less understood, rule that limits you to 64 DIRectory files on a single disk. If you operate like me, with your system disk in Drive A and data disk in Drive B, you will eventually fill up the disk in B with lots of files, including FIN (Perfect Writer), BAK (WordStar) and SEL (Select) files which are really duplications.

CP/M 2.2 won't let you violate the rule of 64. If you can't open a document file or you get a disk full error when you try to write to disk, but STAT (or DISK, WASH, SWEEP or other utility program that measures disk space) shows that you still have enough space on the disk, then you probably have 64 files on disk. One solution is to ERase unneeded FIN, BAK or SEL files. This will still leave your original document file intact in case you need it again.

To save counting files, there are a number of disk directory utilities available in the BOSKUG Library (i.e., D, SD, DD, XDIR) which will give you an alphabetized directory of files on the disk as well as a count of the number of files and available disk space.

--Bob Waters

T/MAKER III (Continued from p. 9)

CONCLUSIONS:

T/Maker has some very nice capabilities, but also some weak points. Its strength is in preparing letters, memos, and short documents which include tabular calculations. It is also very useful as a formatter for longer documents, but not as an editor for them. Some of its faults could be cured with a program like Smartkey, or by using the Perfect Writer editor with the T/Maker formatting commands.

All in all, like many programs on the market, this could be a great program for you if you need one that does the chore for which it was designed, namely creating Tables.

BETA-TEST REPORT

[Ed. Note: We have been "beta-testing" a 486 US 88 machine for several months, but only recently has it been possible to run MS-DOS software on it. Here are the first 2 reports on its 16-bit operational qualities.]

KAYPRO 4 PLUS 88

A beta-test report by Suresh V. Shenoy

I had the 4+88 for about ten days to beta-test. The 16-bit software I was to test was MULTIPLAN. The absence of function keys on the 4+88 made using MULTIPLAN very cumbersome. It was not possible to learn the program, become proficient in its usage over this brief test period and do justice to an evaluation report! This also pointed out the first drawback of this "IBM compatible" machine: without the function keys, one just cannot expect to run software written for the IBM without going through a lot of "control" key sequences.

The two things I liked most about this 4+88 package are: (a) vastly improved documentation, and (b) the ability to run programs using the 128K in RAM as a third disk drive. I almost preferred to use MS-DOS over CP/M because the documentation on MS-DOS is so much better. It is well organized and easy to follow.

I loaded Perfect Writer into RAM and it was incredible how much faster it was to work on documents. The swap function took place in a fraction of the time it normally takes on the disk drives. Some of the 'copy' programs, such as Disk, also seem to work faster when loaded into RAM.

Overall, I liked the 4 + 88. I am not sure if it is worth the difference in price over the Kaypro II or the 4. If one is desperately seeking to run IBM software, or must have a 16 bit machine for some reason, then the question is why bother with a Kaypro, which is at best only partially compatible?

KAYPRO 4 PLUS 88

A beta-test report by John Callahan

My experiences with the Kaypro 4 plus 88 have not been entirely positive. The lack of documentation of its 16-bit MS-DOS capabilities made them largely inaccessible to me.

For example, I discovered by trial and error how to toggle the printer on in MS-DOS. However, I was unsuccessful using the same methodology in learning how to toggle the printer off. Therefore, I had to reset the system (which had defaulted to a CP/M cold boot), then start all over by loading the MS-DOS operating system from the CP/M-to-MS-DOS disk.

As far as I could find, there was no documentation with the machine describing the basic MS-DOS commands.

MS-DOS Multiplan seems to run OK. Since I'm

not an experienced Multiplan user, I can't evaluate the advantages of the 16-bit MS-DOS version over the 8-bit CP/M one. I can, however, report that the Multiplan demo definitely would not run. When I followed the directions for the demo in the Multiplan manual, it would load a program, then deliver only a blank screen with a cursor in the upper left-hand corner. As a new Multiplan user, I did not find this very informative; I was hoping for a demo that would show me Multiplan's capabilities.

A disk with 16-bit Perfect Writer is available with the system. However, again, there is no documentation. Moreover, it contains PW.COM and PF.COM, but not PP.COM. This allows one to edit and format files but not print them. For a word processing program, this is a major drawback.

I did try using the 247K of memory as a ramdisk under 8-bit CP/M. I found this interesting, but not be enough so to make me buy the machine. For my applications, ramdisk is a novelty and a slight convenience, but not a great advantage.

I did find one disadvantage to it: the ramdisk software uses a portion of the 64K of memory available under CP/M (I would estimate about 10K). For this reason, some large ProfitPlan tables that I've developed would not load into memory from the ramdisk. I would get an error message that there was insufficient memory, then the system would warm boot. When not using the ramdisk, however, I had no problem loading the same tables into memory.

If I were going to get an MS-DOS machine, it would be in order to access the large base of software being developed for the IBM PC. The 4 PLUS does not deliver this capability. It can run only "generic" MS-DOS software, which is not the same as IBM PC software. There would also be an inconvenience in trying to run any software that uses IBM function keys, since these do not exist on the Kaypro keyboard.

In addition, the Kaypro 4 PLUS cannot run any software that uses the IBM PC's graphics. This fact alone eliminates Lotus 1-2-3 and the Harvard Project Manager, two programs that are potentially important to me.

PRINTING DOUBLE COLUMNS

Editor Rob Aprato tells how he printed the newsletter in double columns: "First off I spent hours trying to come up with the right combination of margins....[Then] I had to format the newsletter with an enlarged right hand margin. Next, I printed the newsletter, and reformatted it with a large left hand margin. The last thing that I did was reload the paper in my printer and started printing with page TWO. This gave me a newsletter with every other page being usable." For more of the sordid details, contact Rob at: 323 75th St. #17, Everett, WA 98203.

[Reprinted from the April newsletter of the Sno-King KUG of N. Seattle]

MICRO-C'S 5MH SPEED-UP KIT

Micro Cornucopia

P.O. Box 223, Bend, OR 97709; \$29.95

A hardware review by Dwight Woodruff

Wave the flags and blow the trumpets! I finally got my Kaypro II running at 5 MH. That was great for about an hour. Then, as the computer warmed up, the \$29.95 ROM monitor which I purchased from Micro Cornucopia began to misbehave. There were read errors, there were write errors, portions of files disappeared, and then entire files disappeared! (This article is being written using the 2.5 MH clock as I await the arrival of a replacement ROM monitor from Micro-C.)

Not everyone is as unfortunate as I. Bob Waters was able to run his first Kaypro II at 5 MH with only wire and a switch for out-of-pocket expense. And he was able to get his second computer running at 4 MH for the cost of only one \$10 Z80B-CPU chip. What I mean to say is, some people are really lucky!

The time to ask questions is before you take your computer apart. I will answer all of your questions in the light of my current knowledge at any of our Tuesday meetings. It may even be possible to perform a 5 MH update during a meeting (a ten minute job). I expect to have sample parts for your inspection and Micro-C documents on hand for anyone who may be interested in reading the 5 MH speed-up articles and following in my footsteps.

AMBER MONITOR

Amber Visions

878 Jackman St., Ste 192, El Cajon, CA 92020

[619] 579-2435; \$89.95

A hardware review by Phil Marshall

About one month ago, I received an Amber Visions replacement monitor for my Kaypro. The directions seemed straightforward, even including little boxes to check off as items were completed. However, never having opened my computer before, I still became nervous when I read phrases like "lethal voltages," and "after you have removed the main board."

As I followed the instructions, my worries faded away. These directions are of the Heathkit "your-grandmother-could-do-this" variety. The basic procedure is to first take off the cover, then remove the main board. This is not as difficult as it sounds, as the instructions detail every little step. Next, with a screwdriver, you short the tube's anode to the frame to remove any potential voltages. A few screws hold the tube in place; remove them and the yolk around the end, and the tube comes right out. At this point, the instructions even tell you to go get a drink and take a break. The new monitor went in as easily as the old one came out. The only adjustment I was required to make was to remove the yolk (from

around the neck of the tube, not from an egg). The entire process from start to finish (including suggested break) takes less than an hour and requires only two screwdrivers. No soldering is necessary.

When I first powered up my new amber Kaypro, I didn't notice such a big improvement. But the quality of the monitor really grows on you. Now that I have used the amber screen for several weeks, I really like looking at it, and do think that it's easier on the eyes. It's also a very nice anti-glare screen; before investing in one of the attachable ones, you might consider this integrated unit as an alternative, albeit more expensive, solution to the glare problem. We have all heard about the great advantages of amber monitors. In the end, however, you really have to judge for yourself. Come to any of the meetings. My amber Kaypro will be there. Or go to your friendly local computer store and work with an amber screen; it's really a personal choice. Remember, too, that \$89.95 is a great deal to pay for anti-glare, but if you use your computer a lot, this upgrade may be a good investment.

3 DO-IT-YOURSELF REPAIR BOOKS

reviewed by Peter Bates

For those of you who want to do more than gaze at that wire jungle within your Kaypro, there are several good books on the shelves. Unfortunately software books outnumber hardware books 10:1. Apparently, publishers feel hackers can't handle screwdrivers. A few months ago, I embarked on a search and order mission. I came up with the following:

HOW TO MAINTAIN AND SERVICE YOUR SMALL COMPUTER

John Stephenson and Bob Cahill

Howard Sams & Company

Indianapolis, IN

1983; 206 pp., \$17.95

A bargain at any price, this book by two local boys surpasses anything I've read so far. It is attractively written, even reassuring. "The bad news is your computer equipment will fail someday....The good news is you can do something about it."

First, the book explains the options: learn to do all your repair work yourself; pay dearly to have someone do it for you; OR you can learn enough to at least isolate the problem yourself, THEN take it in. It is wiser (and cheaper), say the authors, to remove your drives yourself and tell the more nimble-fingered (maybe!) technician what you think is wrong than to lug in your entire KayPro, wearing a wan look.

The book then carefully explains what you're against and the tools you'll need. It advises you on the proper attitude ("Do not attempt repairs if you are tired or impatient"). Appendix E is a

(Continued on p. 13)

troubleshooting chart, divided vertically into "Possible Cause," "Item to Check," and "See Section:."

With separate chapters on repairing printers, disk drives and peripherals, this is the book to get if you're getting only one.

TROUBLESHOOTING AND REPAIRING PERSONAL COMPUTERS

Art Margolis

Tab Books

Blue Ridge Summit, PA; 1983; 311 pp., \$13.95

I found this book a real curiosity. Its theory is cleanly presented and the drawings are comprehensible. I went through each chapter smugly saying to myself, "Well, good! I understand THAT." But when it came to applying what I'd learned, I found myself at a loss.

My criticism is not a big one, for I genuinely liked the book. It presents a far clearer explanation of SAMs, FETs, EPROMs and PIAs than the other well-recommended books. But I never got the feeling of hands-on repair, the "first-do-this-then-try-that" approach. I also didn't notice a single word about disk drives (they are not even in the index). Considering that many entertainment computers now have optional disk drives, a book that doesn't mention them contains real shortcomings.

GETTING THE MOST FROM YOUR MICRO

Ernest E. Mau

Hayden Book Company

Hasbrouck Heights, NJ

1983; 273 pp., \$17.95

I've saved this book for last, because it's the most entertaining. GTMFYM is a gadgeteer's dream, a good starting text for neophyte hackers. Mau is a real showman, funnier and more knowledgeable than Peter McWilliams. He warns you of hazards that run the gamut from lightning bolts frying your circuits to cockroaches nibbling on your components ("Don't spray them!" is the remedy).

Ernie Mau may even strike some readers as a computer compulsive. Still, his words of caution make sense. He tells us to mount our floppy discs in hub rings so that the clamps will not scrape away at the disk, sprinkling oxide dust into the drives. He even recommends specific products, like two different types of printer lubrication oil.

Mau's horror stories of repair ripoffs are convincing. They teach us that if we want something done right, we've got to learn to do it ourselves. Incidentally, did you know that to use disk head cleaners, you have to "run a program" (like COPY) with them? According to Mau: "Just putting them in the drive and letting them spin won't do the job." It took me two weeks to realize THAT one.

KAYPRO USERS:

With us, you can get savings and support.

	list price	your cost
C. Itoh Prowriter 8510AP 120 cps dot matrix	\$495	\$395
Mannesmann Tally MT 160L 160 cps dot matrix	\$798	\$655
Okidata ML 92P 160 cps dot matrix	\$599	\$450
Star Micronics Gemini 10X 120 cps dot matrix	\$399	\$325
Star Micronics Radix 10 200 cps dot matrix	\$849	\$695
Texas Instruments 855 F/T 150 cps dot matrix	\$995	\$930
C. Itoh A10-20P 18 cps letter quality	\$695	\$585
Juki 6100P 18 cps letter quality	\$599	\$486
NEC 2030 20 cps dot matrix	\$1,095	\$930
Qume LetterPro 20P 20 cps letter quality	\$899	\$710
Silver Reed EXP 500P 14 cps letter quality	\$599	\$450
Anchor Automation Mark XII 110/300/1200 baud modem	\$399	\$297
Hayes Smartmodem 300/1200 baud modem	\$699	\$565

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KAYPRO, THE COMPANY BEHIND THE COMPUTER (Continued from p. 1)

expenses to support total sales of over \$75 million.

The August 25, 1983 prospectus for the stock offering also suggested a bright future. A new desk-top portable was due in "late 1983," and a 10 megabyte hard-disk portable was under development that would be compatible with the IBM XT. Sales of the Kaypro 10 were not up to expectations, but this was attributed to a shortage of disk drives. Kaypro also indicated that it was having difficulty "predicting future results from the highly volatile personal and microcomputer market" -- another hint that caution might be appropriate.

In general, however, the picture seemed almost too good to be true. In retrospect, it probably was.

A number of factors suggest that the rosy picture was overstated and the outlook for Kaypro somewhat uncertain, with opportunities, but also problems. Some of the problems are external and largely beyond the control of Kaypro. Others are self-made.

The opportunities are obvious. We live in a computer world. A lot of machines are going to be sold. At least for a while, there should be rapid year-to-year growth. Growing markets create opportunities for those who can capitalize. Kaypro has some strengths.

Kaypro has succeeded in getting established, and that is very important. It has dealers, a sizable and growing body of users, some name recognition, the ability to actually ship products, proven products to ship, and it has a net worth that, while not great by IBM standards, does bring playing chips to the table. Moreover, Kaypro is now clearly the leader in the 8-bit business, i.e. non-games or graphics, low price field, for whatever that is worth.

However, a number of signs suggest that Kaypro is going in the wrong direction. The company appears to be out of control in terms of inventories, cost structure, product development and management judgment.

Kaypro is developing an IBM XT clone. This machine will have to compete with the Compaq Plus, Eagle, Columbia, Corona, Televideo and the like. Those guys got there first, don't show any sign of committing an Adam Osborne, and lots more are coming besides. Pricing is already getting nasty.

Kaypro recently announced that it is planning to manufacture the Drivetec, a high density, 2.6 megabyte disk drive, to be used on its new and long-overdue Robie desktop computer. The Drivetec is unproven, and compatible with nothing else. The computer industry is littered with the corpses of companies that used non-standard drives (Victor and Computer Devices come quickly to mind). It is difficult indeed to see why Kaypro needs the risk of start-up production of an untried, non-compatible disk drive that is bound to have birth problems.

Kaypro also recently announced that it is soon to be U.S. distributor for a high-priced, high-performance, IBM-compatible lap portable to

be produced in Japan by Mitsui, a Japanese trading company. Few details are available. So far, no-one has demonstrated a market for such a machine at a high price level.

The "Kaypro 16," the IBM XT workalike, is also considerably delayed. If it is just a clone in metal case at a price around the market, it faces a rocky road, as discussed above. If, however, it turns out to be both IBM compatible and also capable of running present Kaypro software and files, has quad drives made nearly universal through Uniform and a flexible controller chip, has terminal emulation software, and maybe just a little open architecture, it could be an outstanding step-up or growth machine for current Kaypro and other 8-bit owners who need IBM compatibility and want to keep using present files and software as well. Everything needed to make such a machine is readily available and economical. But will Kaypro produce it?

[To Be Continued Next Issue.]

USERS' CORNER

Longer Feet For Your Kaypro

From the Houston KUG Newsletter: How to put longer "feet" on the Kaypro computer case, so that it doesn't have to sit on the edge of the keyboard. The rubber feet that the case sits on when it rests on the keyboard are attached by screws. A Houston user removed the two feet and replaced them with two small hinges. He used the hinges to hold extensions about 2.5 inches long, then he installed the rubber feet on the other end of the extensions. These extensions were made from small lengths of steel channeling of the type normally use to support adjustable shelves. By using steel, he was able to solder the hinge to the channel for rigidity.

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BRACKET RACKET

"Not all Kaypros, Perfect Writers and printer combinations are created equal. If you try to turn off page numbering with '', and it doesn't work, try '@Pagefooting()' [with a space between the parentheses]."

[From the Capital (DC) KUG 4/84]

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BUFFER STUFFER

"At the start of a writing session you can load up all 7 of PW's buffers. At the menu prompt 'File to Edit?', simply type all 7 file names with a space between each pair. Or, you can start from CP/M by typing: 'PW FILE1 FILE2 FILE3, etc.'"

[From the Capital (DC) KUG 4/84]

BOSKUG SPECIAL INTEREST GROUPS

BOSKUG PHONE BOOK

Assembly Language for Beginners

Contact Person: Phil Marshall
232-2373 - home
589-1255 - work

Business Management

Contact Person: John Callahan
653-9329 - home
879-5100 - work

dBase II

Contact Person: Kase Van Dongen
924-1177 - home

Working at Home

Contact Person: Scott Southworth
877-2385 - days
467-2337 - evenings

IBEX Computer Owners

Contact Person: George Voorhees
881-1503

Pied Piper Owners

Contact Person: Al Golden
843-4150 - home
335-3400 - work

Telecommunications

Contact Person: Rodney Thayer
489-2103 - work

MUMPS (The programming language not the disease)

Contact Person: Bob Craig
524-5255 - home
232-8005 - work

Kaypro 10

Contact Person: Sean Debardeleben
492-0080 - home

Anyone interested in forming a SIG on any topic should contact John Callahan, BOSKUG Special Interest Group Coordinator, 879-5100 days or 653-9329 evenings.

DIRECTORS: Lee Lockwood 965-6343
Bob Waters 894-5334
SECRETARY: Diane Bushee 787-1824
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(Paper) Chris Ammer 861-8162
PROGRAMS: Suresh Shenoy 862-5173
S.I.G.S: John Callahan 653-9329
SOFTWARE
EVALUATION: Karen Rockow 354-0124
HARDWARE: Phil Marshall 232-2373

KAYPRO TECH SUPPORT:

Software (619) 481-3920
Hardware (619) 481-3424
PERFECT SOFTWARE: (800) 222-4222
Technical Support (415) 524-1296
B.C.S. INFO LINE: 227-0170

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Please complete and return this form to obtain more information about BOSKUG or to update your mailing address.

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Check one: ☐ I am interested in joining BOSKUG,
send me membership information.

☐ Change my address.

MEMBERSHIP INFORMATION

BOSKUG is the official Kaypro Users Group of the Boston Computer Society.

BOSKUG is dedicated to the exchange of information and to helping Kaypro owners solve problems they may have with their machines, its software, or peripherals. BOSKUG meets semi-monthly on the 2nd and 4th Tuesdays. Programs include lectures, panels, and hands-on workshops on CP/M, Perfect Software, applications and other programs available for the Kaypro. Qualified representatives and consultants from Kaypro appear frequently at our meetings to conduct discussions and answer questions. Meeting notices are carried in the BCS monthly CALENDAR and in its bimonthly magazine, UPDATE.

For more information, complete the accompanying form or contact the Boston Computer Society at 367-8080.

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BOSKUG MEETING SCHEDULE

BOSKUG meets at the Minuteman Regional Vocational Technical School, Rte. 2A, Lexington, just west of Rte. 128. Follow signs to I.R.C.

LIBRARY opens at 6:30 p.m. MEETINGS begin 7:15. PROGRAMS start at 8:00 sharp.

APRIL 10 : SIGS (Special Interest Groups)
Beginners' Tutorial at 6:30

APRIL 24 : "PUBLIC DOMAIN SOFTWARE"
Charlie Bowen, BOSKUG Librarian,
describes many free programs you
ought to be using.

MAY 8 : SIGS
Beginners' Tutorial at 6:30

May 22 : "DATA BASE"
At last, Perfect Filer Meets dBase II.
Speaker: - Mike Holmes of BOSKUG.

JUNE 12 : SIGS

JUNE 26 : "HARDWARE EXPO"
Peripherals Of Every Kind For The
Kaypro, All In One Room!
Co-ordinator: Phil Marshall

JULY 24 : (SUMMER SCHEDULE) SIGS ONLY.

AUG. 28 : (SUMMER SCHEDULE) SIGS ONLY.

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